<u>VERSION SHOWING CHANGES TO CLAIMS</u>

This listing replaces all prior listings.

1.   (Currently amended) A three-dimensional image calculating method for calculating a plurality of images utilized in a three-dimensional image display device which comprises:

a lens array having ~~the~~ a predetermined number of convex lenses arranged in a matrix; and

image display means for displaying a plurality of images corresponding to the respective convex lenses, wherein said method <u>comprises</u> ~~consists of~~ <u>the</u> steps of:

assuming a referential viewing distance wherefrom a reproduced three-dimensional image is viewed;

dividing a viewing zone positioned at said referential viewing distance (a referential viewing area) into small areas arranged in another matrix;

ray tracking along a line connecting the center of <u>one of</u> said small area<u>s</u> with a base point of a selected convex lens;

determining a first cross point of said line connected with said selected lens to surfaces of objects to be displayed as a three-dimensional image;

calculating image information on said first cross point;

repeating said calculating step on <u>all of</u> the ~~whole~~ convex lenses; and

repeating <u>the</u> steps from said ray tracking to <u>the</u> just prior step to the present step on respective <u>ones of each</u> said small areas.

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2.   (Currently amended) A three-dimensional image generating method for a three-dimensional image display device which comprises:

a lens array having a ~~the~~ predetermined number of convex lenses arranged in a matrix;

image recording means behind the respective convex lenses arranged nearly at the focal planes of said respective convex lenses;

a two-dimensional display means ahead of said lens array arranged at a predetermined distance from said lens array;

an optical window for passing ~~reaching~~ light rays from said two-dimensional display means to only one of plurality convex lenses;

a light ray shielding means for ~~not reaching~~ blocking light rays from said two-dimensional display means to the ~~other~~ remaining convex lenses except the one convex lens;

an optical window moving means for holding said optical window and for moving said optical window two-dimensionally; and

a sequence controlling means to control images calculated by the method of claim 1 for transferring to said two-dimensional display means and to control movements of said optical window moving means, wherein said method comprises the ~~consists of~~ steps of:

moving said optical window to a position corresponding to a determined convex lens by controlling said sequence controlling means and said optical window moving means;

transferring a calculated image corresponding to said determined convex lens to

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said two-dimensional image display means;

displaying said transferred image for a predetermined period;

exposing said displayed image on said image recording means via said optical window and said convex lens determined by said optical window;

repeating the above-mentioned series of steps on a next determined convex lens; and

repeating the above-mentioned series of steps on all of the ~~whole~~ convex lenses of said lens array so as to complete the three-dimensional image.

3.   (Original) The three-dimensional image generating method according to claim 2, wherein:

an optical shutter controlled by said sequence controlling means is added to said optical window, and

an exposing time of said predetermined period is controlled by opening and shutting said shutter.

4.   (Original) A three-dimensional image display device comprising:

a lens array having the predetermined number of convex lenses arranged in a matrix; and

image display means for displaying a plurality of images calculated by the method of claim 1 corresponding to the respective said convex lenses, wherein:

said lens array is the same lens array employed for generating images by the method of claim 1.

5.   (Original) The three-dimensional image generating method according to claim 2, wherein:

said recording means is a photographic film.